

This Page Is Inserted by IFW Operations
and is not a part of the Official Record

BEST AVAILABLE IMAGES

Defective images within this document are accurate representations of the original documents submitted by the applicant.

Defects in the images may include (but are not limited to):

- BLACK BORDERS
- TEXT CUT OFF AT TOP, BOTTOM OR SIDES
- FADED TEXT
- ILLEGIBLE TEXT
- SKEWED/SLANTED IMAGES
- COLORED PHOTOS
- BLACK OR VERY BLACK AND WHITE DARK PHOTOS
- GRAY SCALE DOCUMENTS

IMAGES ARE BEST AVAILABLE COPY.

**As rescanning documents *will not* correct images,
please do not report the images to the
Image Problem Mailbox.**

SEQUENCE LISTING

<110> Afar, Daniel E.
Hubert, Rene S.
Leong, Kahan
Raitano, Arthur B.
Saffran, Douglas C.
Jakobovits, Aya

<120> BPC-1: A SECRETED BRAIN-SPECIFIC PROTEIN EXPRESSED AND
SECRETED BY PROSTATE AND BLADDER CANCER CELLS

<130> 1703-017.US1

<140> 09/374,135

<141> 1999-08-10

<150> 60/095,982

<151> 1998-08-10

<160> 20

<170> PatentIn Ver. 2.1

<210> 1

<211> 2639

<212> DNA

<213> Homo sapiens

<400> 1

```

cagccccggg ggcgcggcgc cgcgccagcct cgctatccca cccaggctcc gggcttccag 60
gagggtcgcg gagccccaag ccatgactaa ggagcccatt tgatagcaga ggtggcgcgc 120
agccccggcga gccgatgacg gaccccttct tctgaccttc aatgcctcag cggaagatcc 180
ccaagggctg gagcgaggag cgctgccgct ggacatcctc ccggggaggc tgctccgacc 240
tgctgcgcgg cgcgtctgag actggggact gagccactcc gccgcgcgcg gcgcgcgcgc 300
cgccgccccg tccgtcgctg ccgtcggtct ggactggccc ccacctcgct gcgcctctct 360
ccccgccccg gccccggctc ggggcgtccc ggggctcgcc ctgcgaccgc cgcctcccgc 420
gcgcgcgcgc ctcccagacc cgcggcggcg acgatgcccg ggaggagggt cctgacggcg 480
gcggcgcgga tgggtggcggc cggcgcccgg gtgtgatgcg agcgtcacgg tggggatgct 540
gctggctgcg cggcgctgag ggccagcgag agcgagagcc cgcgcggggc ggaggacgga 600
ctcatccgga tctggctgca gcgtgggctc ggagctcccc ctctctctcg gtctccctct 660
cgccccccct ttatttctct cttgctttgc gtctttaaca cctctcgacc ctgtctctcc 720
cccgccactg gaagtcttcc cgtctctaaa tgggaattag ggagcccgga gcctctggtg 780
taacgcacag acatgatcca tgggcgcagc gtgcttcaca ttgtagcaag ttaatcatc 840
ctccatttgt ctggggcaac caagaaagga acagaaaagc aaaccacctc agaaacacag 900
aagtcagtgc agtgtggaac ttggacaaaa catgcagagg gaggtatctt tacctctccc 960
aactatccca gcaagtatcc ccctgaccgg gaatgcatct acatcataga agccgctcca 1020
agacagtgca ttgaacttta ctttgatgaa aagtaactta ttgaaccgtc ttgggagtgc 1080
aaatttgatc atattgaagt tcgagatgga ccttttggtt tttctccaat aattggacgt 1140
ttctgtggac aacaaaatcc acctgtcata aaatccagtg gaagatttct atggattaaa 1200
ttttttgctg atggagagct ggaatctatg ggattttcag ctcgatacaa tttcacacct 1260
ggtaagtaag tacttaaaaa aaaaatttct ttttcttctt catttttcta tcttcatagt 1320
acaaaatctt gtgtaagaca acattatact ttctcagaga atgttccagt tctatttaaa 1380
acctaaatcta cagtgtctttt tcttttccct acacaaattc tgaaaggaaa agatgttttc 1440
cttaaaacag cctatactag aggtaaagag tagtgactca aggctctaaa tgggcatcag 1500
ccacatcatc aagtggactt ttgttatgat ggaatgtgta attggagaga cagtctgtga 1560
taaggaaact atacatagga gctgaataaa cttgaaaaga caattgtagt attataaaat 1620

```

0988759-05548860

```

atatccacca aaatgatctt tggggaactt gaatcaaaag tttatttggt ctgaaaatta 1680
ccgtgtttca atcaaataga tctacttta ggaagtagtc tgctctctt tcaggaaagc 1740
aaattcttaa gagttttgat gaaaggaaaa ctgagacctg taacagccaa atactcattt 1800
acaaggtctt gcagaaattg tgtgcaatta tcaaattatg caatctgtat caattttcct 1860
tttaactcgc tagaattaaa aagatcctgt gttgttgctt ggcccacttg attaagagtt 1920
accattcatt acaataaaaa taggttatca ctttttttca ctgcaagaac actacatgca 1980
ttaattttaa tggaaaaatg attcaaatta cataaagccc attttttata tagtttggtt 2040
tcagtttgta tgtattgttt tatttaagtt aggcaatagc ataatttcaa atatatgtaa 2100
agttggttga agtttggttt ccatgttaaa gaagtaacat ctaaatacag ctttgatact 2160
cagttaaaaa actaaaattt taaaaattat taatataagt ttaatgatga ctttcattat 2220
gacatcatgg ggtatgttaa atcaagtatt tactgtagca tatatattag ctttaagcat 2280
taggaatggt ttaataataa tcactaaagg attgtggttt taattatgct ttgctgataa 2340
tggattactc acagaaatca tgggtatttc atgtgctaca gtcgaactaa tttgaagtat 2400
tcccaaaagg tacaaatggt agcttaattt gtttggttcag attattagtg ctagagttgt 2460
aaatggaaag gtaggtattt ttttcttaac tgataatttt gaatataacc tgtacctaga 2520
gacagtgaca tacggcatgt tctaggtttc ataagttata ttttcattct ggggttggtg 2580
atcatgaaaa taatgtcttg gatttaaaat tgtggtttca caaaaaaaaa aaaaaaaaaa 2639

```

```

<210> 2
<211> 158
<212> PRT
<213> Homo sapiens

```

```

<400> 2
Met Ile His Gly Arg Ser Val Leu His Ile Val Ala Ser Leu Ile Ile
  1                      5                      10                      15

Leu His Leu Ser Gly Ala Thr Lys Lys Gly Thr Glu Lys Gln Thr Thr
          20                      25                      30

Ser Glu Thr Gln Lys Ser Val Gln Cys Gly Thr Trp Thr Lys His Ala
          35                      40                      45

Glu Gly Gly Ile Phe Thr Ser Pro Asn Tyr Pro Ser Lys Tyr Pro Pro
          50                      55                      60

Asp Arg Glu Cys Ile Tyr Ile Ile Glu Ala Ala Pro Arg Gln Cys Ile
          65                      70                      75                      80

Glu Leu Tyr Phe Asp Glu Lys Tyr Ser Ile Glu Pro Ser Trp Glu Cys
          85                      90                      95

Lys Phe Asp His Ile Glu Val Arg Asp Gly Pro Phe Gly Phe Ser Pro
          100                      105                      110

Ile Ile Gly Arg Phe Cys Gly Gln Gln Asn Pro Pro Val Ile Lys Ser
          115                      120                      125

Ser Gly Arg Phe Leu Trp Ile Lys Phe Phe Ala Asp Gly Glu Leu Glu
          130                      135                      140

Ser Met Gly Phe Ser Ala Arg Tyr Asn Phe Thr Pro Gly Lys
          145                      150                      155

```

```

<210> 3

```

0908759-062101

<211> 115
 <212> PRT
 <213> Caenorhabditis elegans

<400> 3
 Ile Phe Thr Ser Pro Asn Phe Pro Asp Arg Tyr Pro Pro Asn Ile Asp
 1 5 10 15
 Cys Val Arg Val Ile His Ser Arg Pro Gln His Asp Val Val Val Lys
 20 25 30
 Phe His His Val Phe His Ile Glu Ser Thr Tyr Asp Lys Ile Asp Ala
 35 40 45
 Gly Glu Glu Cys Pro Asn Asp Phe Ile Glu Phe Arg Asp Gly Arg Tyr
 50 55 60
 Gly Phe Ser Pro Leu Ile Ala Arg Phe Cys Gly Asp Arg Met Pro Lys
 65 70 75 80
 Arg Glu Ile Arg Ala Val Ser Gly Phe Leu Trp Ile Arg Phe Arg Ser
 85 90 95
 Asp Ser Met Leu Glu Tyr Gln Gly Phe Ser Ala Glu Tyr Ala Ile Val
 100 105 110
 Pro Ser Lys
 115

<210> 4
 <211> 101
 <212> PRT
 <213> Mouse

<400> 4
 Gly Asn Phe Ser Ser Pro Glu Tyr Pro Asn Gly Tyr Ser Ala His Met
 1 5 10 15
 His Cys Val Trp Arg Ile Ser Val Thr Pro Gly Glu Lys Ile Ile Leu
 20 25 30
 Asn Phe Thr Ser Met Asp Leu Tyr Arg Ser Arg Leu Cys Trp Tyr Asp
 35 40 45
 Tyr Val Glu Val Arg Asp Gly Phe Trp Arg Lys Val Trp Val Arg Gly
 50 55 60
 Arg Phe Cys Gly Gly Lys Leu Pro Glu Pro Ile Val Ser Thr Asp Ser
 65 70 75 80
 Arg Leu Trp Val Glu Phe Arg Ser Ser Ser Asn Trp Val Gly Lys Gly
 85 90 95
 Phe Phe Ala Val Tyr
 100

TOF2290-06523360

SECRET

```
<210> 6
<211> 101
<212> PRT
<213> Mouse
```

4

<210> 7
 <211> 102
 <212> PRT
 <213> Mouse

<400> 7
 Gly Thr Ile Thr Ser Pro Asn Trp Pro Asp Lys Tyr Pro Ser Lys Lys
 1 5 10 15

 Glu Cys Thr Trp Ala Ile Ser Ser Thr Pro Gly His Arg Val Lys Leu
 20 25 30

 Thr Phe Val Glu Met Asp Ile Glu Ser Gln Pro Glu Cys Ala Tyr Asp
 35 40 45

 His Leu Glu Val Phe Asp Gly Arg Asp Ala Lys Ala Pro Val Leu Gly
 50 55 60

 Arg Phe Cys Gly Ser Lys Lys Pro Glu Pro Val Leu Ala Thr Gly Asn
 65 70 75 80

 Arg Met Phe Leu Arg Phe Tyr Ser Asp Asn Ser Val Gln Arg Lys Gly
 85 90 95

 Phe Gln Ala Ser His Ser
 100

<210> 8
 <211> 95
 <212> PRT
 <213> Mouse

<400> 8
 Asn Asn Tyr Pro Gly Gly Val Asp Cys Glu Trp Val Ile Val Ala Glu
 1 5 10 15

 Glu Gly Tyr Gly Val Glu Leu Val Phe Gln Thr Phe Glu Val Glu Glu
 20 25 30

 Glu Thr Asp Cys Gly Tyr Asp Tyr Ile Glu Leu Phe Asp Gly Tyr Asp
 35 40 45

 Ser Thr Ala Pro Arg Leu Gly Arg Tyr Cys Gly Ser Gly Pro Pro Glu
 50 55 60

 Glu Val Tyr Ser Ala Gly Asp Ser Val Leu Val Lys Phe His Ser Asp
 65 70 75 80

 Asp Thr Ile Ser Lys Lys Gly Phe His Leu Arg Tyr Thr Ser Thr
 85 90 95

<210> 9
 <211> 14
 <212> DNA
 <213> Artificial Sequence

09097593.062101

<220>

<223> Description of Artificial Sequence: cDNA synthesis primer

<400> 9

ttttgatcaa gctt

14

<210> 10

<211> 42

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: DNA Adaptor 1

<400> 10

ctaatacgac tcactatagg gctcgagcgg ccgcccgggc ag

42

<210> 11

<211> 40

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: DNA Adaptor 2

<400> 11

gtaatacgac tcactatagg gcagcgtggt cgcggccgag

40

<210> 12

<211> 22

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: PCR primer 1

<400> 12

ctaatacgac tcactatagg gc

22

<210> 13

<211> 22

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Nested primer (NP) 1

<400> 13

tcgagcggcc gcccgggcag ga

22

098859-DE2101

<210> 14
 <211> 20
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Nested primer
 (NP) 2

<400> 14
 agcgtggtcg cggccgagga 20

<210> 15
 <211> 24
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: RT-PCR primer

<400> 15
 tgccgtatgt cactgtctct aggt 24

<210> 16
 <211> 24
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: RT-PCR primer

<400> 16
 gaaatcatgg gtatttcacg tgct 24

<210> 17
 <211> 26
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: RT-PCR primer

<400> 17
 ttgaattcca agcaaaccac ctcaga 26

<210> 18
 <211> 28
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: RT-PCR primer

<400> 18
aagctcgagt cagacgggttc aatagagt

28

<210> 19
<211> 30
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: BPC1.HINDIII
primer

<400> 19
gtgtaagctt ccaccaagaa aggaacagaa

30

<210> 20
<211> 29
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: BPC1.BAMHI
primer

<400> 20
cacaggatcc cttaccaggt gtgaaattg

29

09887593.062101